Claims

1. A digital convergent recorder, comprising:

tuners 121 and 122 for receiving digital broadcast signals, which broadcast signals are constructed according to a first moving picture compression format, from an outside thereof and for outputting digital broadcast data for the digital broadcast signals;

an Analog-to-Digital (AD) converter 111 for receiving analog Video/Audio (A/V) signals, for converting the analog A/V signals into digital A/V signals and for outputting the digital A/V signals;

a first moving picture encoder 112 for encoding the output digital A/V signals of the AD converter into a first moving picture data according to a first moving picture compression format and for outputting the first moving picture data;

a storage medium access unit 125 for receiving the digital broadcast data and the first moving picture data, for storing the digital broadcast data and the first moving picture data in a storage device, and for outputting moving picture file data from the storage device;

moving picture decoders 123 and 124 for receiving the digital broadcast data and the moving picture·file data, for decoding the digital broadcast data and the moving picture file data into a uncompressed moving picture data

according to a first moving picture decoding format corresponding to the first moving picture compression format, and for outputting the uncompressed moving picture data;

5   a second moving picture encoder 113 for encoding the output digital A/V signals of the AD converter and the uncompressed moving picture data of the moving picture decoders into a second moving picture data according to a second moving picture compression format that is suitable

10   for Internet transmission and has a compression ratio higher than that of the first moving picture compression format, and for outputting the second moving picture data; and

        a network access unit 114 for transmitting the second

15   moving picture data from the second moving picture encoder to an outside thereof via the Internet.

        2. The digital convergent recorder according to claim 1, wherein the first moving picture compression format is a Moving Picture Experts Group-2 (MPEG-2) Transport Stream

20   (TS) compression format, and the second moving picture compression format is a Motion-Joint Photographic Experts Group (M-JPEG) compression format.

        3. The digital convergent recorder according to claim 1, wherein the storage medium access unit 125, in response

to a control command transmitted via the network access unit 114 from an outside thereof, selects one from and switches between the digital broadcast data and the first moving picture data so as to be stored in the storage
5   device.

4. The digital convergent recorder according to claim 1, wherein the second moving picture encoder 113, in response to a specific control command transmitted via the network access unit 114 from an outside thereof, selects
10   one from and switches between the digital output signals of the AD converter and the uncompressed moving picture data so as to be encoded according to the second moving picture compression format.

5. The digital convergent recorder according to claim
15   1, wherein the tuners 121 and 122 include a plurality of tuner modules corresponding to different broadcast services, select one from and switch between the plurality of tuner modules in response a specific control command transmitted via the network access unit 114 from an outside
20   thereof, and output the digital broadcast data from the selected tuner module.

6. The digital convergent recorder according to any of claims 3 to 5, wherein the network access unit 114 is

provided with the control command according to the Transmission Control Protocol/Internet Protocol (TCP/IP) from the outside, converts the control command into an internal instruction, and transmits the internal

5   instruction to an interior of the digital convergent recorder via a serial communication.

7. The digital convergent recorder according to claim 1, wherein the digital broadcast data and the moving picture file data include scrambled data, and wherein the

10   moving picture decoders 123 and 124 include a cryptographic module 123 for descrambling the scrambled data included in the digital broadcast data and the moving picture file data and outputting the descrambled data, and a decoding module 124 for decoding the output data of the cryptographic

15   module into a uncompressed moving picture data according to the first moving picture decoding format and for outputting the uncompressed moving picture data.